
BWSR FEATURED PLANT

VIRGINIA WILD RYE *Elymus virginicus*

Publication Date: 10-2-12



Virginia wild rye is a perennial cool-season native bunchgrass. It is used for a wide variety of conservation projects as it is fast growing, a good stabilizing species and it can grow in partial shade. The species is used as an early successional plant in seed mixes ranging from riparian to stormwater mixes. It is also a valuable species for wildlife, as it provides good early season cover, and is used as a food source for many wildlife species.

Identification

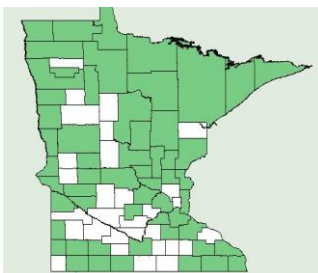
Virginia wild rye is typically around three to four feet tall, has smooth light green stems, and its leaves are up to two-thirds of an inch wide. Both sides of the leaves are hairless and rough to the touch. Sheaths are mostly open and are sometimes purplish at the base. Claw-like auricles are typically present and the species has a short auricle. Flower spikes are 2-6 inches long and are densely covered with stiff ascending spikelets with straight awns up to 1cm long.



Virginia wild rye seeded into a wet meadow restoration

A similar species, Canada wild rye (*E. canadensis*) grows in dryer conditions has bluish leaf blades, larger drooping spikes, and awns that spread outward when mature. Two other native rye species are also commonly used in seed mixes, silk wild rye (*E. villosus*) and riverbank wild rye (*E. riparius*). Both of these species have drooping seedheads like Canada wild rye, though silky wild rye has dark green leaves with fine hairs on the leaves, sheaths, glumes and lemmas, while riverbank wild rye has dark green hairless leaves.

Range



Range based on University of Minnesota Herbarium data

Virginia wild rye is found in the eastern two-thirds of the United States, as well as some western states. It is widely distributed across Minnesota with herbarium data recorded in most counties. The species can handle a wide range of soil types and moisture levels. As a result, it is found in a variety of plant communities including lowland hardwood forest, shrub swamps, wet meadows, and mesic prairies. Its ability to handle partial shade and some disturbance also make it well suited and a relatively common species in floodplain forests.

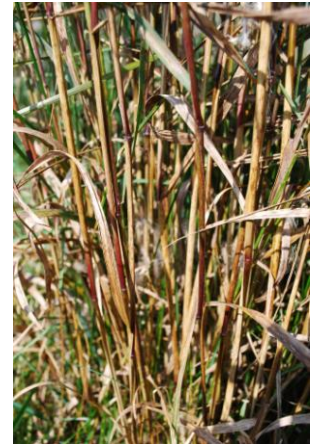
Virginia wild rye is adapted to colonize disturbed soils such as flood deposits.

Uses

Virginia wild rye is used by livestock as part of rotational grazing (or as hay) in the spring and fall when the species is actively growing. It can produce as much as 3,300lb of dry weight forage per dry land acre (NRCS). The grass should not be grazed the first year as it is establishing and should not be grazed lower than about six-inches during subsequent years.

Virginia wild rye is a component of State of Minnesota wet meadow, riparian, and stormwater seed mixes. In these mixes it is used as a cover species to establish rapidly, compete with invasive weeds, and then decrease in abundance as later successional native species establish.

The species provides a food source for many wildlife species; leaves are eaten by geese, deer and elk, and the seeds are eaten by ducks, small mammals and songbirds. The plant is used by many insects species including leaf hoppers, beetles, and caterpillars.



Reddish base and stems of Virginia wild rye

Planting Recommendations

Virginia wild rye is most commonly planted by seed as it has reliable establishment. Seed can either be broadcast or drilled (1/4 - 1/2 inches deep). The species will germinate most successfully when there is little weed competition, so it is important to have weeds thoroughly controlled through agricultural production or other means before seeding. Spring seeding is generally most successful as fall seeding can lead to loss of seed from rodent and bird predation.



It is common that Virginia wild rye is seeded at a rate of 1-3 pounds per acre in seed mixes; As much as 20 lb per acre may be used when broadcast seeding single species stands. When broadcast seeding it is recommended to cultipack after seeding to ensure good seed to soil contact.

The species often benefits from mowing early in establishment to suppress weeds and allow sufficient sunlight to reach the seedlings. Virginia wild rye is not very tolerant of fire (particularly when it is most active), so it may phase out of mesic prairie plantings where fire is used as a management tool.

Additional References

http://www.mn.nrcs.usda.gov/programs/wrp/plantid/pdf/Virginia%20Wildrye_09.pdf
<http://plants.usda.gov/java/profile?symbol=elvi3>
<http://wisplants.uwsp.edu/scripts/detail.asp?SpCode=ELYVIRvVIR>

Virginia wild rye is part of State wetland, riparian and stormwater seed mixes.